Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	WO-9807850-\$	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/02/02 16:14
L2	4471	Bergmann.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/02/02 16:15
L3	32	Preddie.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/02/02 16:15
L4	52707	Alzheimer	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/02/02 16:15
L5	17	L2 and L4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/02/02 16:15
L6	8	L3 and L4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/02/02 16:15

10/700,922 STN STRATEGY

(FILE 'HOME' ENTERED AT 16:28:24 ON 02 FEB 2006)

FILE 'MEDLINE, BIOSIS, LIFESCI, EMBASE, SCISEARCH, CAPLUS' ENTERED AT

16:29:30 ON 02 FEB 2006

- L1 5487 S BERGMANN
- L2 20 S BERGMANN/AU
- L3 56 S L1 AND ALZHEIMER
- L4 19 DUP REM L3 (37 DUPLICATES REMOVED)
- L5 4 S PREDDIE

10/700,922 Sequence search

SEQ ID NO: 3

```
¥
Result
               Query
       Score Match Length DB ID
                                                        Description
  No.
 _____
                         79 2 AAW53981
          408 100.0
                                                        Aaw53981 Human ALZ
                        70 4 AAE09373
                                                         Aae09373 Human wil
    2
          344
               84.3
                       100 2 AAR37866
100 3 AAB13015
          344
                84.3
                                                         Aar37866 Full-leng
    3
                                                        Aab13015 Human amy
    4
          344
                84.3
                        100 5 AAE14371
                                                        Aae14371 Amyloid p
    5
          344
                84.3
                        100 6 ABP97921
                84.3
                                                        Abp97921 Amino aci
    6
          344
          344
                        100 9 ADY70298
                                                        Ady70298 Human bet
                84.3
                                                        Ady70733 Human nic
                        100 9 ADY70733
    8
          344
                84.3
    9
          344
                84.3
                        103 2 AAR74697
                                                        Aar74697 Beta-amyl
                       103 2 AAW51317
103 2 AAW89372
                                                        Aaw51317 Natural b
                84.3
   10
          344
                                                        Aaw89372 Beta-amyl
   11
          344
                84.3
                        103 3 AAY56103
                                                        Aay56103 Beta amyl
   12
          344
                84.3
                        103 4 AAE12509
                                                         Aae12509 Beta-amyl
   13
          344
                84.3
          344
                        103 5 ABG71002
                                                         Abg71002 Amyloid p
   14
                84.3
                                                        Abb05150 Beta amyl
                        103 5 ABB05150
   15
          344
                84.3
          344
                84.3
                        103 6 ABG73457
                                                         Abg73457 Amyloid p
   16
                       103 8 ADJ64053
103 8 ADQ37336
                                                         Adj64053 Amyloid p
   17
          344
                84.3
                                                        Adq37336 Amyloid p
   18
          344
                84.3
                        104 2 AAW51100
                                                        Aaw51100 Amino aci
          344
                84.3
   19
                                                         Aae14379 Gamma-sec
   20
          344
                84.3
                        108 5 AAE14379
          344
                        108
                            6
                               ABP97923
                                                         Abp97923 Amino aci
   21
                84.3
                                                         Aaw51102 Flag-amyl
                        117
                            2 AAW51102
   22
          344
                84.3
          344
                84.3
                        264 1 AAP90609
                                                         Aap90609 Sequence
   23
                        264 1 AAP90497
487 2 AAW26394
                                                         Aap90497 Protein s
          344
                84.3
   24
                                                         Aaw26394 Amyloid p
   25
          344
                84.3
RESULT 1
AAW53981
    AAW53981 standard; protein; 79 AA.
ID
XX
    AAW53981;
AC
XX
    18-AUG-1998 (first entry)
DT
XX
DE
    Human ALZASp.
XX
KW
    Dsas; DSASp; alzas; Down's syndrome; diagnosis; therapy; human;
    Alzheimer's disease.
KW
XX
    Homo sapiens.
os
XX
PN
    WO9807850-A2.
XX
PD
    26-FEB-1998.
XX
PF
     22-AUG-1997; 97WO-EP004599.
XX
                 96CA-02183901.
PR
     22-AUG-1996;
XX
     (BERG/) BERGMANN J E.
PA
     (PRED/) PREDDIE E R.
PA
XX
ΡI
     Bergmann JE, Preddie ER;
XX
    WPI; 1998-169155/15.
DR
    N-PSDB; AAV23753.
DR
XX
     Nucleic acid molecules dsas, and alzas - used for detecting and treating
PT
PT
    Down's syndrome and Alzheimer's disease.
XX
     Claim 13; Fig 1H; 96pp; English.
PS
XX
```

```
This sequence is the ALZASp encoded by the nucleic acid alzas. The dsas
CC
    and alzas DNA sequences are the nucleic acids of the invention. Reagents
CC
    specifically for DSASp can be used for the diagnosis of Down's syndrome
CC
CC
    in humans and especially in pregnant women. Molecules that inhibit the
    activity of the promoters (PDS1, PDS2, PDS3, and PDS4) for dsas can be
CC
    used for treating Down's syndrome. The reagent capable of detecting alzas
CC
    can be used for detecting Alzheimer's disease, especially in the pre-
CC
    symptomatic stage. Substances that inhibit the promoters for alzas can be
CC
    used in treating Alzheimer's disease
CC
XX
    Sequence 79 AA;
                         100.0%; Score 408; DB 2; Length 79;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 1.7e-45;
                               0; Mismatches
                                                0; Indels
           79; Conservative
                                                              0; Gaps
                                                                          0 :
           1 MDAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVIVITLVMLKKKQYTS 60
             1 MDAEFRHDSGYEVHHOKLVFFAEDVGSNKGAIIGLMVGGVVIATVIVITLVMLKKKQYTS 60
Db
          61 IHHGVVEVGKLDCMFPSGN 79
Qу
             111111111111111111
          61 IHHGVVEVGKLDCMFPSGN 79
Db
                                   SUMMARIES
                ą.
Result
               Ouerv
        Score Match Length DB ID
                                                        Description
  No.
        _____
                        100 6 5187153-10
                                                        Patent No. 5187153
    1
          344
                84.3
                        100 6 5220013-10
                                                        Patent No. 5220013
    2
          344
                84.3
                       103 1 US-08-404-831-2
                                                         Sequence 2, Appli
          344
               84.3
    3
                       103 1 US-08-612-785B-2
103 1 US-08-475-579A-2
                                                         Sequence 2, Appli
    4
          344
                84.3
                84.3
                                                         Sequence 2, Appli
          344
                        103 1 US-08-920-162A-2
                                                         Sequence 2, Appli
                84.3
          344
    6
                        103 2 US-08-339-708A-10
                                                         Sequence 10, Appl
          344
                84.3
    7
                                US-09-356-931-2
                                                          Sequence 2, Appli
          344
                84.3
                        103 2
    8
                        103 2 US-08-703-675C-2
                                                         Sequence 2, Appli
    9
          344
                84.3
                       103 2 US-08-617-267C-2
                                                          Sequence 2, Appli
    10
          344
                84.3
                       103 2 US-09-519-019A-2
103 2 US-09-895-443A-2
                                                          Sequence 2, Appli
                84.3
    11
          344
    12
          344
                84.3
                                                         Sequence 2, Appli
                                                          Sequence 2, Appli
                84.3
                        103 2 US-10-395-290-2
    13
          344
                        105 1 US-08-729-345-1
                                                          Sequence 1, Appli
    14
          344
                84.3
                        117 1 US-08-729-345-3
                                                          Sequence 3, Appli
    15
          344
                84.3
                       264 1 US-07-990-893-5
                                                          Sequence 5, Appli
    16
          344
                84.3
    17
          344
                84.3
                        487 1 US-08-462-859A-9
                                                          Sequence 9, Appli
                        487 1 US-08-123-659A-9
487 1 US-08-464-247A-9
                                                          Sequence 9, Appli
                84.3
    18
          344
                                                          Sequence 9, Appli
    19
          344
                84.3
                        487 1 US-08-464-248A-9
                                                          Sequence 9, Appli
          344
                84.3
    20
                        492 1 US-08-462-859A-7
                                                          Sequence 7, Appli
    21
          344
                84.3
    22
          344
                84.3
                        492 1
                                US-08-123-659A-7
                                                          Sequence 7, Appli
                        492 1 US-08-464-247A-7
                                                          Sequence 7, Appli
    23
          344
                84.3
    24
          344
                84.3
                        492 1 US-08-464-248A-7
                                                          Sequence 7, Appli
                        537 1 US-08-453-552-4
                                                          Sequence 4, Appli
                84.3
          344
    25
SUMMARIES
                ¥.
Result
               Query
        Score Match Length DB ID
                                                         Description
  No.
         ______
                         79 5 US-10-700-922-3
                                                          Sequence 3, Appli
          408 100.0
    1
                        100 4 US-10-275-025-1
                                                          Sequence 1, Appli
          344
                84.3
    2
                        100 5 US-10-486-265-5
          344
                84.3
                                                          Sequence 5, Appli
    3
                        103 3 US-09-972-475-2
103 3 US-09-895-443-2
                                                          Sequence 2, Appli
          344
                84.3
                84.3
                                                          Sequence 2, Appli
     5
          344
                        103 4 US-10-395-290-2
                                                         Sequence 2, Appli
          344
                84.3
     6
                        103 4 US-10-463-729-2
                                                         Sequence 2, Appli
          344
                84.3
     7
                                US-10-989-763-2
                                                          Sequence 2, Appli
     8
          344
                84.3
                        103 5
                        108 4 US-10-275-025-9
```

108 5 US-10-486-265-7

534 3 US-09-998-491-2

9

10

344

344

344

84.3

84.3

84.3

Sequence 9, Appli

Sequence 7, Appli

Sequence 2, Appli

12	344	84.3	534	4	US-10-475-281-2	Sequence 2, Appli
13	344	84.3	695	3	US-09-794-927-10	Sequence 10, Appl
14	344	84.3	695	3	US-09-795-847-10	Sequence 10, Appl
15	344	84.3	695	3	US-09-794-743-10	Sequence 10, Appl
16	344	84.3	695	3	US-09-794-748-10	Sequence 10, Appl
17	344	84.3	695	3	US-09-794-925-10	Sequence 10, Appl
18	344	84.3	695	3	US-09-681-442-10	Sequence 10, Appl
19	344	84.3	695	3	US-09-149-718-2	Sequence 2, Appli
20	344	84.3	695	3	US-09-869-414-10	Sequence 10, Appl
21	344	84.3	695	3	US-09-548-366-10	Sequence 10, Appl
22	344	84.3	695	3	US-09-998-491-1	Sequence 1, Appli
23	344	84.3	695	4	US-10-169-580-3	Sequence 3, Appli
24	344	84.3	695	4	US-10-357-935-1	Sequence 1, Appli
25	344	84.3	695	4	US-10-427-208-45	Sequence 45, Appl

Result		Query				B
No.	Score	Match	Length	DB	ID	Description
1	344	84.3	103	6	US-10-677-076-2	Sequence 2, Appli
2	344	84.3	770	6	US-10-982-545-15	Sequence 15, Appl
3	344	84.3	770	6	US-10-789-273-38	Sequence 38, Appl
4	222	54.4	43	6	US-10-934-818-6	Sequence 6, Appli
5	222	54.4	43	6	US-10-250-581-1	Sequence 1, Appli
6	222	54.4	43	6	US-10-250-581-1	Sequence 1, Appli
7	222	54.4	43	6	US-10-677-076-1	Sequence 1, Appli
8	217	53.2	42	6	US-10-923-605-1	Sequence 1, Appli
9	217	53.2	42	6	US-10-934-818-1	Sequence 1, Appli
10	217	53.2	42	7	US-11-016-706-37	Sequence 37, Appl
11	217	53.2	42	7	US-11-031-538-1	Sequence 1, Appli
12	209	51.2	40	7	US-11-016-706-36	Sequence 36, Appl
13	206	50.5	42	6	US-10-250-581-16	Sequence 16, Appl
14	206	50.5	42	6	US-10-250-581-19	Sequence 19, Appl
15	206	50.5	42	6	US-10-250-581-16	Sequence 16, Appl
16	206	50.5	42	6	US-10-250-581-19	Sequence 19, Appl
17	205	50.2	42	6	US-10-250-581-4	Sequence 4, Appli
18	205	50.2	42	6	US-10-250-581-10	Sequence 10, Appl
19	205	50.2	42	6	US-10-250-581-13	Sequence 13, Appl
20	205	50.2	42	6	US-10-250-581-4	Sequence 4, Appli
21	205	50.2	42	6	US-10-250-581-10	Sequence 10, Appl
22	205	50.2	42	6	US-10-250-581-13	Sequence 13, Appl
23	204	50.0	42	6	US-10-250-581-7	Sequence 7, Appli
24	204	50.0	42	6	US-10-250-581-7	Sequence 7, Appli
25	198	48.5	40	6	US-10-250-581-15	Sequence 15, Appl

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	344	84.3	695	1	A49795	Alzheimer's diseas
2	344	84.3	770	1	QRHUA4	Alzheimer's diseas
3	340	83.3	82	2	PQ0438	Alzheimer's diseas
4	325	79.7	695	2	A27485	Alzheimer's diseas
5	325	79.7	695	2	S00550	Alzheimer's diseas
6	322	78.9	747	2	JH0773	Alzheimer's diseas
7	265	65.0	57	2	A60045	Alzheimer's diseas
8	265	65.0	57	2	F60045	Alzheimer's diseas
9	265	65.0	57	2	D60045	Alzheimer's diseas
10	265	65.0	57	2	E60045	Alzheimer's diseas
11	265	65.0	57	2	G60045	Alzheimer's diseas
12	265	65.0	57	2	B60045	Alzheimer's diseas
13	217	53.2	42	2	PN0512	beta-amyloid prote
14	138	33.8	33	2	S23094	beta-amyloid prote
15	138	33.8	763	2	A49321	amyloid beta (A4)
16	137.5	33.7	191	2	A35981	sperm membrane pro
17	137.5	33.7	511	2	JC1404	CDEI-box DNA-bindi
18	137.5	33.7	751	2	A49974	beta-amyloid precu

19	137.5	33.7	765	2	S42880	amyloid precursor-
20	87.5	21.4	653	2	A46362	amyloid precursor-
21	71	17.4	460	2	F83639	hypothetical prote
22	71	17.4	678	2	C86495	hypothetical prote
23	71	17.4	678	2	H72128	3-methyl-2-oxobuta
24	69.5	17.0	805	2	A75014	hypothetical prote
25	68.5	16.8	378	2	S61992	SLG1 protein - yea

	*				
	Query				
Score	Match	Length	DB	ID	Description
344	84.3	113	2	Q8JH58 CHESE	Q8jh58 chelydra se
344	84.3	534	2	O93296 CHICK	O93296 gallus gall
344	84.3	695	2	Q5R477 PONPY	Q5r477 pongo pygma
344	84.3	695	2	Q6RH29 CANFA	Q6rh29 canis famil
344	84.3	695	2	Q56JK3_CANFA	Q56jk3 canis famil
344	84.3	695	2	Q9DGJ8_CHICK	Q9dgj8 gallus gall
344	84.3	714	2	Q56JK4 CANFA	Q56jk4 canis famil
344	84.3	749	2	Q56JK2_STECO	Q56jk2 stenella co
344	84.3	751	1	A4_SAISC	Q95241 s amyloid b
344	84.3	751	2	Q6GSC0_HUMAN	Q6gsc0 homo sapien
344	84.3	751	2	Q6RH28_CANFA	Q6rh28 canis famil
344	84.3	751	2	Q56JK5_CANFA	Q56jk5 canis famil
344	84.3	751	2	Q4R4R8_MACFA	Q4r4r8 macaca fasc
344	84.3	751	2	Q9DGJ7_CHICK	Q9dgj7 gallus gall
344	84.3	770	1	A4_CAVPO	Q60495 c amyloid b
344	84.3	770	1	A4_HUMAN	P05067 h amyloid b
344	84.3	770	1	A4_MACFA	P53601 m amyloid b
344	84.3	770	1	A4_PANTR	Q5is80 p amyloid b
344	84.3	770	1	A4_PIG	P79307 s amyloid b
344	84.3	770	2	Q6RH30_CANFA	Q6rh30 canis famil
344	84.3	770	2	Q56JK6_CANFA	Q56jk6 canis famil
339	83.1	569	2	Q9PVL1_CHICK	Q9pvl1 gallus gall
325	79.7	218	2	Q8BPV5_MOUSE	Q8bpv5 mus musculu
325	79.7	384	2	Q8BPC7_MOUSE	Q8bpc7 mus musculu
325	79.7	695	2	Q6GR78_MOUSE	Q6gr78 mus musculu
	344 344 344 344 344 344 344 344 344 344	Score Match 344 84.3	Query Score Match Length 344 84.3 113 344 84.3 534 344 84.3 695 344 84.3 695 344 84.3 714 344 84.3 751 344 84.3 751 344 84.3 751 344 84.3 751 344 84.3 751 344 84.3 751 344 84.3 751 344 84.3 751 344 84.3 751 344 84.3 751 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 344 84.3 770 345 84.3 770 346 84.3 770 347 84.3 770 347 84.3 770 348 84.3 770 349 85.5 79.7 218	Query Score Match Length DB 344 84.3 113 2 344 84.3 695 2 344 84.3 695 2 344 84.3 695 2 344 84.3 695 2 344 84.3 714 2 344 84.3 751 1 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 751 1 344 84.3 751 2 344 84.3 751 2 344 84.3 751 2 344 84.3 770 1 344 84.3 770 1 344 84.3 770 1 344 84.3 770 1 344 84.3 770 1 344 84.3 770 1 344 84.3 770 1 344 84.3 770 1 344 84.3 770 1 344 84.3 770 1 344 84.3 770 2 344 84.3 770 2 344 84.3 770 2 349 83.1 569 2 325 79.7 218 2	Query Score Match Length DB ID 344 84.3 113 2 Q8JH58_CHESE 344 84.3 534 2 O93296_CHICK 344 84.3 695 2 Q5R477_PONPY 344 84.3 695 2 Q6RH29_CANFA 344 84.3 695 2 Q9DGJ8_CHICK 344 84.3 714 2 Q56JK4_CANFA 344 84.3 714 2 Q56JK2_STECO 344 84.3 751 1 A4_SAISC 344 84.3 751 2 Q6RH28_CANFA 344 84.3 751 2 Q9DGJ7_CHICK 344 84.3 751 2 Q9DGJ7_CHICK 344 84.3 770 1 A4_CAVPO 344 84.3 770 1 A4_HUMAN 344 84.3 770 1 A4_HUMAN 344 84.3 770 1 A4_PANTR 344 84.3 770 1 A4_PIG 344 84.3 770 2 Q6RH30_CANFA 349 83.1 569 2 Q9PVL1_CHICK 325 79.7 218 2 Q8BPV5_MOUSE 325 79.7 384 2 Q8BPV5_MOUSE

Residues 68-79

SUMMARIE	5	8				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	68	100.0	44	2	AAW53985	Aaw53985 Human ALZ
2	68	100.0	79	2	AAW53981	Aaw53981 Human ALZ
3	41	60.3	319	8	ADY10870	Ady10870 Plant ful
4	41	60.3	320	8	ADX76988	Adx76988 Plant ful
5	41	60.3	390	8	ADX67647	Adx67647 Plant ful
6	41	60.3	464	8	ADY13875	Ady13875 Plant ful
7	41	60.3	474	8	ADY23182	Ady23182 Plant ful
8	41	60.3	508	8	ADX77129	Adx77129 Plant ful
9	41	60.3	567	8	ADY10151	Ady10151 Plant ful
10	41	60.3	567	8	ADY10022	Ady10022 Plant ful
11	41	60.3	571	8	ADY25252	Ady25252 Plant ful
12	41	60.3	571	8	ADY10833	Ady10833 Plant ful
13	41	60.3	571	8	ADY25174	Ady25174 Plant ful
14	41	60.3	571	8	ADY10835	Ady10835 Plant ful
15	41	60.3	572	8	ADY08462	Ady08462 Plant ful
16	41	60.3	572	8	ADY24912	Ady24912 Plant ful
17	41	60.3	857	7	ABM86562	Abm86562 Rice abio
18	40	58.8	126	6	ABR57102	Abr57102 MLHR amin
19	40	58.8	372	2	AAR06242	Aar06242 Homing re
20	40	58.8	372	2	AAR12470	Aar12470 Sequence
21	40	58.8	372	2	AAR24027	Aar24027 Sequence
22	40	58.8	372	2	AAR22803	Aar22803 Murine ly
23	40	58.8	372	2	AAR37961	Aar37961 Mouse Lym

40 58.8 372 2 AAR38909 40 58.8 372 2 AAR83051 Aar38909 MLHR. 3/2 24 Aar83051 Mouse LHR SUMMARIES Result Query Score Match Length DB ID Description ______ 60.3 566 2 US-09-431-470-2 Sequence 2, Appli 1 41 40 58.8 126 6 5514582-31 Patent No. 5514582 2 40 58.8 372 1 US-08-513-278-4 Sequence 4, Appli 372 6 5514582-4 197 2 US-09-905-558D-2 58.8 Patent No. 5514582 4 40 57.4 Sequence 2, Appli 5 39 372 1 US-08-513-278-2 Sequence 2, Appli 38 55.9 6 372 6 5514582-2 Patent No. 5514582 55.9 7 38 Sequence 2, Appli 55.9 385 1 US-08-340-539A-2 8 38 Sequence 2, Appli 385 1 US-08-461-592B-2 9 38 55.9 10 55.9 563 2 US-09-431-470-4 Sequence 4, Appli 38 148 2 US-09-083-852A-4 148 2 US-09-083-852A-6 Sequence 4, Appli 11 54.4 37 37 54.4 Sequence 6, Appli 12 148 2 US-09-489-674B-6 Sequence 6, Appli 13 37 54.4 198 2 US-09-270-767-38209 37 Sequence 38209, A 54.4 14 Sequence 53426, A 198 2 US-09-270-767-53426 15 37 54.4 54.4 392 2 US-09-991-181-205 37 Sequence 205, App 16 Sequence 205, App 54.4 392 2 US-09-990-444-205 17 37 392 2 US-09-997-333-205 392 2 US-09-992-598-205 Sequence 205, App 18 37 54.4 37 Sequence 205, App 54.4 19 393 2 US-09-482-273-154 Sequence 154, App 20 37 54.4 566 1 US-07-955-905A-2 37 Sequence 2, Appli 21 54.4 566 1 US-07-955-905A-22 22 54.4 Sequence 22, Appl 37 629 2 US-09-252-991A-17988 37 Sequence 17988, A 23 54.4 812 2 US-09-198-452A-978 37 54.4 Sequence 978, App 24 Sequence 907, App 25 37 54.4 812 2 US-09-438-185A-907 SUMMARIES Result Ouerv Score Match Length DB ID Description -68 100.0 13 5 US-10-700-922-37 68 100.0 44 5 US-10-700-922-5 Sequence 37, Appl 1 Sequence 5, Appli 68 100.0 79 5 US-10-700-922-3 Sequence 3, Appli 79 5 US-10-700 522 5 186 4 US-10-424-599-283376 3 Sequence 283376, 64.7 44 379 4 US-10-424-599-283377 Sequence 283377, 64.7 5 44 Sequence 66685, A 319 4 US-10-425-114-66685 6 41 60.3 320 4 US-10-425-114-46354 Sequence 46354, A 7 60.3 41 390 4 US-10-425-114-38490 60.3 Sequence 38490, A 8 41 9 41 60.3 463 4 US-10-425-115-331535 Sequence 331535, 464 4 US-10-425-114-69690 60.3 Sequence 69690, A 10 41 Sequence 70966, A 11 41 60.3 474 4 US-10-425-114-70966 60.3 Sequence 331539, 474 4 US-10-425-115-331539 41 12 Sequence 46495, A 60.3 508 4 US-10-425-114-46495 13 41 566 4 US-10-425-115-331542 567 4 US-10-425-114-65837 60.3 Sequence 331542, 14 41 Sequence 65837, A 60.3 15 41 16 41 60.3 567 4 US-10-425-114-65966 Sequence 65966, A 60.3 567 4 US-10-425-115-331541 Sequence 331541, 41 17 Sequence 331546, 567 4 US-10-425-115-331546 18 41 60.3 60.3 571 4 US-10-425-114-66648 Sequence 66648, A 19 41 60.3 571 4 US-10-425-114-66650 Sequence 66650, A 20 41 21 41 60.3 571 4 US-10-425-114-72958 Sequence 72958, A 571 4 US-10-425-114-73036 60.3 Sequence 73036, A 22 41 23 41 60.3 572 4 US-10-425-114-64277 Sequence 64277, A 572 4 US-10-425-114-72696 784 4 US-10-437-963-194970 60.3 Sequence 72696, A 24 41 Sequence 194970, 25 41 SUMMARIES 용

Result

Query No. Score Match Length DB ID

Description

1	38	55.9	320	6	US-10-995-561-947	Sequence 947, App
2	38	55.9	372	6	US-10-844-035-1	Sequence 1, Appli
3	38	55.9	373	6	US-10-995-561-948	Sequence 948, App
4	38	55.9	375	6	US-10-995-561-946	Sequence 946, App
5	38	55.9	385	6	US-10-995-561-945	Sequence 945, App
6	38	55.9	385	6	US-10-995-561-949	Sequence 949, App
7	37	54.4	148	6	US-10-526-716-2	Sequence 2, Appli
8	37	54.4	392	7	US-11-084-458-2	Sequence 2, Appli
9	36	52.9	497	6	US-10-821-234-1119	Sequence 1119, Ap
10	35	51.5	270	7	US-11-219-146-26	Sequence 26, Appl
11	35	51.5	270	7	US-11-219-146-28	Sequence 28, Appl
12	35	51.5	270	7	US-11-219-146-30	Sequence 30, Appl
13	35	51.5	270	7	US-11-219-146-32	Sequence 32, Appl
14	35	51.5	1304	6	US-10-821-234-1648	Sequence 1648, Ap
15	34	50.0	492	6	US-10-467-657-7714	Sequence 7714, Ap
16	34	50.0	549	7	US-11-054-281-129	Sequence 129, App
17	34	50.0	572	6	US-10-793-626-2974	Sequence 2974, Ap
18	34	50.0	591	7	US-11-054-281-36	Sequence 36, Appl
19	34	50.0	591	7	US-11-054-281-128	Sequence 128, App
20	34	50.0	592	7	US-11-054-281-126	Sequence 126, App
21	34	50.0	592	7	US-11-054-281-127	Sequence 127, App
22	33	48.5	198	7	US-11-214-199-6	Sequence 6, Appli
23	33	48.5	350	6	US-10-878-556A-66	Sequence 66, Appl
24	33	48.5	383	7	US-11-147-047-38	Sequence 38, Appl
25	33	48.5	791	6	US-10-055-877-137	Sequence 137, App

		*			SUMMARIES	
Result		Query				
No.	Score	-	Length	DB	ID	Description
1	42	61.8	570	2	T11647	probable pyruvate
2	41	60.3	566	2	A48860	beta-glucosidase,
3	41	60.3	668	2	H71312	probable ATP-depen
4	40	58.8	252	2	H97189	glycosyltransferas
5	40	58.8	372	1	A32375	L-selectin precurs
6	40	58.8	508	2	T32847	hypothetical prote
7	38	55.9	121	2	D91251	hypothetical prote
8	38	55.9	145	2	AD1093	hypothetical prote
9	38	55.9	238	2	A75478	shikimate kinase -
10	38	55.9	276	2	JC2441	dihydrodiol dehydr
11	38	55.9	385	1	A34015	L-selectin precurs
12	38	55.9	542	2	AI3564	hypothetical membr
13	38	55.9	563	2	T02720	beta-D-glucosidase
14	38	55.9	660	2	T20228	hypothetical prote
15	38	55.9	994	1	JQ0151	myosin heavy chain
16	38	55.9	1661	2	H71439	hypothetical prote
17	37	54.4	148	2	S46514	puroindoline-b pre
18	37	54.4	238	2	AG2909	hypothetical prote
19	37	54.4	258	2	E97684	hypothetical prote
20	37	54.4	358	2	A72416	hypothetical prote
21	37	54.4	566	2	S22477	vicilin precursor
22	37	54.4	619	2	F96703	unknown protein, 3
23	37	54.4	624	2	A83237	hypothetical prote
24	37	54.4	809	2	G86603	muramate-Ala ligas
25	37	54.4	809	2	D72022	UDP-N-acetylmurama

Result No.	Score	Query Match	Length	DB	ID	Description
1	42	61.8	258	1	PYRK_STRMU	Q8dtu9 streptococc
2	42	61.8	397	2	Q8EJW4_SHEON	Q8ejw4 shewanella
3	42	61.8	570	2	042873_SCHPO	O42873 schizosacch
4	42	61.8	1159	2	Q54T02 DICDI	Q54t02 dictyosteli
5	41	60.3	566	1	BGLC_MAIZE	P49235 zea mays (m
6	41	60.3	566	2	Q53WW9_MAIZE	Q53ww9 zea mays (m

```
41
           60.3
                    668 2 083538_TREPA
                                                    O83538 treponema p
7
            60.3
                    768 2
                            Q7PQ01 ANOGA
                                                    Q7pq01 anopheles g
8
       41
                                                     Q69xn5 oryza sativ
            60.3
                    857 2 Q69XN5 ORYSA
       41
9
                    252 2 Q97GL5_CLOAB
                                                    Q97gl5 clostridium
10
       40
            58.8
                                                    Q67yq8 arabidopsis
11
       40
            58.8
                    350
                        2 Q67YQ8_ARATH
                                                    Q6npn9 arabidopsis
                    350 2 Q6NPN9_ARATH
12
       40
            58.8
                    372 1 LYAM1 MOUSE
                                                    P18337 m l-selecti
13
       40
            58.8
                    508 2 044864 CAEEL
                                                    044864 caenorhabdi
14
       40
            58.8
     39.5
                   1172 2 Q6Z3X7 ORYSA
                                                     Q6z3x7 oryza sativ
15
            58.1
                                                    O9mwv3 leopardus p
                    79 2 Q9MWY3_LEOPA
16
       39
            57.4
                                                    Q73tb4 mycobacteri
            57.4
                    273 2 Q73TB4_MYCPA
17
       39
                    324 2 Q63VS5 BURPS
324 2 Q62IJ4 BURMA
                                                     Q63vs5 burkholderi
18
       39
            57.4
                                                    Q62ij4 burkholderi
19
       39
            57.4
                    360 2 Q9U8H8 9EUKA
                                                    Q9u8h8 giardia ard
            57.4
20
       39
                    494 2 Q86A22_DICDI
                                                    Q86a22 dictyosteli
21
       39
            57.4
                    712
                        2
                            Q8EF46 SHEON
                                                     Q8ef46 shewanella
22
       39
            57.4
                   1816 2 Q8IJL6_PLAF7
                                                    Q8ijl6 plasmodium
            56.6
23
     38.5
                                                    P96303 alcaligenes
                    50 2 P96303_ALCEU
24
       38
            55.9
                    121 2 Q8X2Y4_ECO57
                                                     Q8x2y4 escherichia
25
       38
            55.9
```

SEQ ID NO: 4

```
Ouery
Result
  No. Score Match Length DB ID
                                                      Description
       ------
   1 254.5 93.9 51 2 AAW53984
                                                      Aaw53984 Human ALZ
                       162 1 AAP83151
162 2 AAR10023
                                                       Aap83151 Deduced s
        254.5
               93.9
    2
                                                       Aar10023 Beta-amyl
        254.5
    3
               93.9
               93.9
                      162 2 AAR37863
                                                       Aar37863 Deduced f
        254.5
                       100 5 AAE14375
108 5 AAE14383
                                                       Aae14375 Amyloid p
               39.7
        107.5
    5
                                                      Aae14383 Gamma-sec
        107.5
               39.7
        107.5
                       112 2 AAR93556
                                                      Aar93556 Familial
               39.7
    7
                      695 2 AAW19484
                                                      Aaw19484 APP695 mu
    8
        107.5
               39.7
                       695 2 AAW19498
                                                       Aaw19498 APP695 mu
    9
        107.5
               39.7
                      695 3 AAY88436
                                                      Aav88436 Human APP
        107.5
               39.7
   10
        107.5
               39.7
                      695 4 AAU07207
                                                       Aau07207 Human bet
   11
                                                       Aae10634 Human amy
                      695 4 AAE10634
        107.5
               39.7
   12
                                                      Aae06864 Human amy
                      695 4 AAE06864
   13
        107.5
               39.7
                                                      Aae02586 Human amy
        107.5
               39.7
                      695 4 AAE02586
   14
                      695 4 AAU06608
                                                      Aau06608 Human Amy
   15
        107.5
               39.7
                       695 5 ABB78595
                                                       Abb78595 Human APP
   16
        107.5
               39.7
                      695 8 ADJ94326
                                                      Adi94326 Human amy
   17
        107.5
               39.7
                                                       Ado50422 Human amy
   18
        107.5
               39.7
                      695 8 ADO50422
                                                       Adr75335 Human amy
   19
                      695 8 ADR75335
        107.5
               39.7
                                                      Aay88430 Human APP
                       697 3 AAY88430
   20
        107.5
               39.7
        107.5
                       697 4 AAU07210
                                                      Aau07210 Human bet
               39.7
   21
                                                      Aae10637 Human amy
                       697 4 AAE10637
   22
        107.5
               39.7
   23
        107.5
               39.7
                       697
                           4 AAE06867
                                                       Aae06867 Human amy
                                                      Aae02589 Human amy
                       697 4 AAE02589
   24
        107.5
               39.7
   25
        107.5
              39.7
                       697 4 AAU06611
                                                       Aau06611 Human Amy
RESULT 1
AAW53984
    AAW53984 standard; protein; 51 AA.
ID
XX
    AAW53984;
AC
XX
    18-AUG-1998 (first entry)
DT
\mathbf{X}\mathbf{X}
DE
    Human ALZASp1.
XX
    Dsas; DSASp; alzas; Down's syndrome; diagnosis; therapy; human;
KW
    Alzheimer's disease.
KW
XX
os
    Homo sapiens.
XX
PN
    WO9807850-A2.
XX
```

```
26-FEB-1998.
PD
XX
                  97WO-EP004599.
    22-AUG-1997;
PF
XX
    22-AUG-1996; 96CA-02183901.
PR
ХX
PA
     (BERG/) BERGMANN J E.
     (PRED/) PREDDIE E R.
PA
XX
    Bergmann JE, Preddie ER;
PΙ
XX
DR
    WPI; 1998-169155/15.
DR
    N-PSDB; AAV23754.
ХX
    Nucleic acid molecules dsas, and alzas - used for detecting and treating
PT
    Down's syndrome and Alzheimer's disease.
PT
XX
PS
     Example 3; Fig 1J; 96pp; English.
XX
     This sequence is the ALZASp1 encoded by the nucleic acid alzas. The dsas
CC
    and alzas DNA sequences are the nucleic acids of the invention. Reagents
CC
     specifically for DSASp can be used for the diagnosis of Down's syndrome
CC
     in humans and especially in pregnant women. Molecules that inhibit the
CC
     activity of the promoters (PDS1, PDS2, PDS3, and PDS4) for dsas can be
CC
CC
     used for treating Down's syndrome. The reagent capable of detecting alzas
     can be used for detecting Alzheimer's disease, especially in the pre-
CC
     symptomatic stage. Substances that inhibit the promoters for alzas can be
CC
    used in treating Alzheimer's disease
CC
xx
so
    Sequence 51 AA;
  Query Match 93.9%; Score 254.5; DB 2; Length 51; Best Local Similarity 98.1%; Pred. No. 6.7e-29;
                                                 0; Indels
                                                                1; Gaps
  Matches 51; Conservative
                                0; Mismatches
                                                                            1:
            1 MDAEFRHDSGYEVHHQKLVRKIIYLFPLLFVLPNDLLTLVHPFVLEIKLRKR 52
              1 MDAEFRHDSGYEVHHQKLVRKIIYLFPLLFVLPNDLLTLVHP-VLEIKLRKR 51
Db
```

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	254.5	93.9	152	6	5187153-4	Patent No. 5187153
2	254.5	93.9	162	6	5220013-4	Patent No. 5220013
3	254.5	93.9	162	6	5223482-4	Patent No. 5223482
4	107.5	39.7	695	2	US-09-548-372D-14	Sequence 14, Appl
5	107.5	39.7	695	2	US-09-548-367D-14	Sequence 14, Appl
6	107.5	39.7	695	2	US-09-551-853D-14	Sequence 14, Appl
7	107.5	39.7	695	2	US-09-416-901B-14	Sequence 14, Appl
8	107.5	39.7	695	2	US-09-548-376D-14	Sequence 14, Appl
9	107.5	39.7	695	2	US-09-794-927A-14	Sequence 14, Appl
10	107.5	39.7	695	2	US-09-548-373D-14	Sequence 14, Appl
11	107.5	39.7	695	2	US-09-795-847B-14	Sequence 14, Appl
12	107.5	39.7	695	2	US-09-869-414-14	Sequence 14, Appl
13	107.5	39.7	695	2	US-09-548-366F-14	Sequence 14, Appl
14	107.5	39.7	695	2	US-09-548-368D-14	Sequence 14, Appl
15	107.5	39.7	695	2	US-09-794-925A-14	Sequence 14, Appl
16	107.5	39.7	695	2	US-09-806-194A-14	Sequence 14, Appl
17	107.5	39.7	695	2	US-09-668-314C-14	Sequence 14, Appl
18	107.5	39.7	695	2	US-09-548-365-14	Sequence 14, Appl
19	107.5	39.7	695	2	US-09-794-743-14	Sequence 14, Appl
20	107.5	39.7	697	2	US-09-548-372D-20	Sequence 20, Appl
21	107.5	39.7	697	2	US-09-548-367D-20	Sequence 20, Appl
22	107.5	39.7	697	2	US-09-551-853D-20	Sequence 20, Appl
23	107.5	39.7	697	2	US-09-416-901B-20	Sequence 20, Appl
24	107.5	39.7	697	2	US-09-548-376D-20	Sequence 20, Appl
25	107.5	39.7	697	2	US-09-794-927A-20	Sequence 20, Appl

		*				
Result		Query				
No.	Score	_	Length	DB	ID	Description
			F 2	5	US-10-700-922-4	Sequence 4, Appli
1	271	100.0	52			
2	107.5	39.7	100	4	US-10-275-025-5	Sequence 5, Appli
3	107.5	39.7	108	4	US-10-275-025-13	Sequence 13, Appl
4	107.5	39.7	695	3	US-09-794-927-14	Sequence 14, Appl
5	107.5	39.7	695	3	US-09-795-847-14	Sequence 14, Appl
6	107.5	39.7	695	3	US-09-794-743-14	Sequence 14, Appl
7	107.5	39.7	695	3	US-09-794-748-14	Sequence 14, Appl
8	107.5	39.7	695	3	US-09-794-925-14	Sequence 14, Appl
				3	US-09-681-442-14	Sequence 14, Appl
9	107.5	39.7	695			-
10	107.5	39.7	695	3	US-09-869-414-14	Sequence 14, Appl
11	107.5	39.7	695	3	US-09-548-366-14	Sequence 14, Appl
12	107.5	39.7	695	4	US-10-652-927-14	Sequence 14, Appl
13	107.5	39.7	695	4	US-10-652-830-14	Sequence 14, Appl
14	107.5	39.7	695	4	US-10-652-045-14	Sequence 14, Appl
15	107.5	39.7	695	5	US-10-476-935-14	Sequence 14, Appl
16	107.5	39.7	695	5	US-10-940-867-14	Sequence 14, Appl
			695	5	US-10-477-076-14	Sequence 14, Appl
17	107.5	39.7				-
18	107.5	39.7	695	5	US-10-817-979-14	Sequence 14, Appl
19	107.5	39.7	697	3	US-09-794-927-20	Sequence 20, Appl
20	107.5	39.7	697	3	US-09-795-847-20	Sequence 20, Appl
21	107.5	39.7	697	3	US-09-794-743-20	Sequence 20, Appl
22	107.5	39.7	697	3	US-09-794-748-20	Sequence 20, Appl
23	107.5	39.7	697	3	US-09-794-925-20	Sequence 20, Appl
24	107.5	39.7	697	3	US-09-681-442-20	Sequence 20, Appl
25		39.7	697	3	US-09-869-414-20	Sequence 20, Appl
45	107.5	39.7	057	,	05-05-805 414 20	bequence 20,pp1
		•				
					SUMMARIES	
		*				
		O				
Result		Query				
Result No.	Score	-	Length	DB	ID	Description
No.	Score	Match	-		ID	Description
No.	- -	Match	 -			
No. 1	105	Match 38.7	103	6	US-10-677-076-2	Sequence 2, Appli
No. 1 2	105 105	Match 38.7 38.7	103 770	6 6	US-10-677-076-2 US-10-982-545-15	Sequence 2, Appli Sequence 15, Appl
No. 1 2 3	105 105 105	38.7 38.7 38.7	103 770 770	6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl
No. 1 2 3 4	105 105 105 105	38.7 38.7 38.7 38.7 36.9	103 770 770 40	6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl
No. 1 2 3 4 5	105 105 105	Match 38.7 38.7 38.7 36.9 36.9	103 770 770 40 40	6 6 6 7 7	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appl
No. 1 2 3 4	105 105 105 105	38.7 38.7 38.7 38.7 36.9	103 770 770 40	6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appl Sequence 1, Appli
No. 1 2 3 4 5	105 105 105 100	Match 38.7 38.7 38.7 36.9 36.9	103 770 770 40 40	6 6 6 7 7	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appl
No. 1 2 3 4 5	105 105 105 100 100	38.7 38.7 38.7 36.9 36.9 36.9 36.9	103 770 770 40 40 42	6 6 6 7 7 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appl Sequence 1, Appli
No. 1 2 3 4 5 6 7 8	105 105 105 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42	6 6 6 7 7 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appl Sequence 1, Appli Sequence 1, Appli
No. 1 2 3 4 5 6 7 8 9	105 105 105 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42 42 42	6 6 6 7 7 6 6 7	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli
No. 1 2 3 4 5 6 7 8 9 10	105 105 105 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42 42 42 42	6 6 6 7 7 6 6 7	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 6, Appli
No. 1 2 3 4 5 6 7 8 9 10 11	105 105 105 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42 42 42 43 43	6 6 7 7 6 6 7 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 6, Appli Sequence 1, Appli
No. 1 2 3 4 5 6 7 8 9 10 11 12	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42 42 42 43 43	6 6 7 7 6 7 6 7 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 1, Appli Sequence 6, Appli Sequence 1, Appli Sequence 1, Appli
No. 1 2 3 4 5 6 7 8 9 10 11 12 13	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42 42 42 43 43 43	6 6 7 7 6 6 7 7 6 6 6 6 7	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-677-076-1	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 37, Appl Sequence 37, Appli Sequence 6, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli
No. 1 2 3 4 5 6 7 8 9 10 11 12	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42 42 42 43 43 43	6 6 6 7 7 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-1	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli
No. 1 2 3 4 5 6 7 8 9 10 11 12 13	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42 42 42 43 43 43	6 6 6 7 7 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-677-076-1	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 17, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 36.9 36.9	103 770 770 40 40 42 42 42 42 43 43 43 43	6 6 6 7 7 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-1	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 35.1 35.1	103 770 770 40 42 42 42 42 43 43 43 43 28 28	6 6 6 6 7 7 6 6 7 7 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-14 US-10-250-581-17 US-10-250-581-17	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 17, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 35.1 35.1	103 770 770 40 42 42 42 43 43 43 43 28 28 28	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-14 US-10-250-581-14 US-10-250-581-17	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appl Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 14, Appl Sequence 14, Appl Sequence 17, Appl Sequence 14, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1	103 770 770 40 42 42 42 43 43 43 43 28 28 28	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-14 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appl Sequence 1, Appli Sequence 1, Appli Sequence 37, Appl Sequence 1, Appli Sequence 17, Appl Sequence 14, Appl Sequence 17, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1	103 770 770 40 40 42 42 42 43 43 43 43 28 28 28 28 40	6 6 7 7 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-14 US-10-250-581-14 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appli Sequence 17, Appli Sequence 17, Appl Sequence 15, Appl Sequence 15, Appl Sequence 18, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1	103 770 770 40 42 42 42 42 43 43 43 28 28 28 28 40 40	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-1 US-10-250-581-14 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 14, Appl Sequence 14, Appl Sequence 14, Appl Sequence 14, Appl Sequence 17, Appl Sequence 15, Appl Sequence 15, Appl Sequence 18, Appl Sequence 18, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1	103 770 770 40 40 42 42 42 43 43 43 43 28 28 28 28 40 40		US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 1, Appli Sequence 17, Appl Sequence 14, Appl Sequence 17, Appl Sequence 17, Appl Sequence 17, Appl Sequence 15, Appl Sequence 18, Appl Sequence 18, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1	103 770 770 40 42 42 42 42 43 43 43 43 28 28 28 28 40 40 40		US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-250-581-1 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appl Sequence 1, Appli Sequence 17, Appl Sequence 14, Appl Sequence 17, Appl Sequence 17, Appl Sequence 18, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1 35.1	103 770 770 40 42 42 42 43 43 43 43 43 28 28 28 40 40 40 40 42 42		US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-16 US-10-250-581-16	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 12, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appl Sequence 18, Appl Sequence 18, Appl Sequence 18, Appl Sequence 18, Appl Sequence 16, Appl Sequence 16, Appl Sequence 19, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1	103 770 770 40 42 42 42 42 43 43 43 43 28 28 28 28 40 40 40		US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-250-581-1 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15 US-10-250-581-15	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appli Sequence 17, Appli Sequence 17, Appl Sequence 17, Appl Sequence 15, Appl Sequence 16, Appl Sequence 19, Appl Sequence 19, Appl Sequence 19, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1 35.1	103 770 770 40 42 42 42 43 43 43 43 43 28 28 28 40 40 40 40 42 42	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 12, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appl Sequence 18, Appl Sequence 18, Appl Sequence 18, Appl Sequence 18, Appl Sequence 16, Appl Sequence 16, Appl Sequence 19, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1 35.1 35.1	103 770 770 40 40 42 42 42 43 43 43 43 28 28 28 28 40 40 40 40 40 42 42 42	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appli Sequence 17, Appli Sequence 17, Appl Sequence 17, Appl Sequence 15, Appl Sequence 16, Appl Sequence 19, Appl Sequence 19, Appl Sequence 19, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1 35.1 35.1	103 770 770 40 40 42 42 42 43 43 43 43 28 28 28 28 40 40 40 40 40 42 42 42	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appli Sequence 17, Appli Sequence 17, Appl Sequence 17, Appl Sequence 15, Appl Sequence 16, Appl Sequence 19, Appl Sequence 19, Appl Sequence 19, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1 35.1 35.1	103 770 770 40 40 42 42 42 43 43 43 43 28 28 28 28 40 40 40 40 40 42 42 42	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appli Sequence 17, Appli Sequence 17, Appl Sequence 17, Appl Sequence 15, Appl Sequence 16, Appl Sequence 19, Appl Sequence 19, Appl Sequence 19, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1 35.1 35.1	103 770 770 40 40 42 42 42 43 43 43 43 28 28 28 28 40 40 40 40 40 42 42 42	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appli Sequence 17, Appli Sequence 17, Appl Sequence 17, Appl Sequence 15, Appl Sequence 16, Appl Sequence 19, Appl Sequence 19, Appl Sequence 19, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 SUMMARIN	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1 35.1	103 770 770 40 40 42 42 42 43 43 43 43 28 28 28 28 40 40 40 40 40 42 42 42	6 6 6 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appli Sequence 17, Appli Sequence 17, Appl Sequence 17, Appl Sequence 15, Appl Sequence 16, Appl Sequence 19, Appl Sequence 19, Appl Sequence 19, Appl
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	105 105 105 100 100 100 100 100 100 100	Match 38.7 38.7 38.7 36.9 36.9 36.9 36.9 36.9 35.1 35.1 35.1 35.1 35.1 35.1 35.1	103 770 770 40 40 42 42 42 43 43 43 43 28 28 28 28 40 40 40 40 40 42 42 42	6667766776666666666666666666666666666	US-10-677-076-2 US-10-982-545-15 US-10-789-273-38 US-11-016-706-36 US-11-098-674-12 US-10-923-605-1 US-10-934-818-1 US-11-016-706-37 US-11-031-538-1 US-10-934-818-6 US-10-250-581-1 US-10-250-581-1 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-17 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-18 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19 US-10-250-581-19	Sequence 2, Appli Sequence 15, Appl Sequence 38, Appl Sequence 36, Appl Sequence 12, Appli Sequence 1, Appli Sequence 17, Appli Sequence 17, Appli Sequence 17, Appl Sequence 17, Appl Sequence 15, Appl Sequence 16, Appl Sequence 19, Appl Sequence 19, Appl Sequence 19, Appl

1	105	38.7	57	2	A60045	Alzheimer's diseas
2	105	38.7	57	2	F60045	Alzheimer's diseas
3	105	38.7	57	2	D60045	Alzheimer's diseas
4	105	38.7	57	2	E60045	Alzheimer's diseas
5	105	38.7	57	2	G60045	Alzheimer's diseas
6	105	38.7	57	2	B60045	Alzheimer's diseas
7	105	38.7	82	2	PQ0438	Alzheimer's diseas
8	105	38.7	695	1	A49795	Alzheimer's diseas
9	105	38.7	770	1	QRHUA4	Alzheimer's diseas
10	100	36.9	42	2	PN0512	beta-amyloid prote
11	90	33.2	747	2	JH0773	Alzheimer's diseas
12	86	31.7	33	2	S23094	beta-amyloid prote
13	86	31.7	695	2	A27485	Alzheimer's diseas
14	86	31.7	695	2	S00550	Alzheimer's diseas
15	63	23.2	324	1	TVRTAS	transforming prote
16	59	21.8	324	2	S51001	transforming prote
17	58	21.4	334	2	T27081	hypothetical prote
18	57.5	21.2	337	2	T20947	hypothetical prote
19	56.5	20.8	590	2	G90127	hypothetical prote
20	56	20.7	399	2	I48705	proteinase activat
21	55.5	20.5	153	2	G82778	hypothetical prote
22	55.5	20.5	303	2	E83131	probable transcrip
23	55.5	20.5	735	2	F98228	1,4-alpha-glucan b
24	55.5	20.5	735	2	AH3057	glycogen branching
25	55	20.3	227	2	T31455	magnesium-protopor

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	105	38.7	57	1	A4_URSMA	Q29149 u alzheimer
2	105	38.7	58	1	A4_CANFA	Q28280 c alzheimer
3	105	38.7	58	1	A4_RABIT	Q28748 o alzheimer
4	105	38.7	58	1	A4_SHEEP	Q28757 o alzheimer
5	105	38.7	59	1	A4_BOVIN	Q28053 b alzheimer
6	105	38.7	113	2	Q8JH58_CHESE	Q8jh58 chelydra se
7	105	38.7	534	2	093296_CHICK	093296 gallus gall
8	105	38.7	569	2	Q9PVL1_CHICK	Q9pvl1 gallus gall
9	105	38.7	695	2	Q5R477_PONPY	Q5r477 pongo pygma
10	105	38.7	695	2	Q6RH29_CANFA	Q6rh29 canis famil
11	105	38.7	695	2	Q56JK3_CANFA	Q56jk3 canis famil
12	105	38.7	695	2	Q9DGJ8_CHICK	Q9dgj8 gallus gall
13	105	38.7	714	2	Q56JK4_CANFA	Q56jk4 canis famil
14	105	38.7	749	2	Q56JK2_STECO	Q56jk2 stenella co
15	105	38.7	751	1	A4_SAISC	Q95241 s amyloid b
16	105	38.7	751	2	Q6GSC0_HUMAN	Q6gsc0 homo sapien
17	105	38.7	751	2	Q6RH28_CANFA	Q6rh28 canis famil
18	105	38.7	751	2	Q56JK5_CANFA	Q56jk5 canis famil
19	105	38.7	751	2	Q4R4R8_MACFA	Q4r4r8 macaca fasc
20	105	38.7	751	2	Q9DGJ7_CHICK	Q9dgj7 gallus gall
21	105	38.7	770	1	A4_CAVPO	Q60495 c amyloid b
22	105	38.7	770	1	A4_HUMAN	P05067 h amyloid b
23	105	38.7	770	1	A4_MACFA	P53601 m amyloid b
24	105	38.7	770	1	A4_PANTR	Q5is80 p amyloid b
25	105	38.7	770	1	A4_PIG	P79307 s amyloid b

Residues 20-51

	% Ouery				
Score	-	Length	DB	ID	Description
144.5	89.8	51	2	AAW53984	Aaw53984 Human ALZ
144.5	89.8	162	1	AAP83151	Aap83151 Deduced s
144.5	89.8	162	2	AAR10023	Aar10023 Beta-amyl
144.5	89.8	162	2	AAR37863	Aar37863 Deduced f
54.5	33.9	574	8	ADN19927	Adn19927 Bacterial
54	33.5	451	6	ABM70190	Abm70190 Photorhab
	144.5 144.5 144.5 144.5 54.5	Query Score Match 144.5 89.8 144.5 89.8 144.5 89.8 144.5 89.8 54.5 33.9	Query Score Match Length 144.5 89.8 51 144.5 89.8 162 144.5 89.8 162 144.5 89.8 162 54.5 33.9 574	Query Score Match Length DB 144.5 89.8 51 2 144.5 89.8 162 1 144.5 89.8 162 2 144.5 89.8 162 2 54.5 33.9 574 8	Query Score Match Length DB ID 144.5 89.8 51 2 AAW53984 144.5 89.8 162 1 AAP83151 144.5 89.8 162 2 AAR10023 144.5 89.8 162 2 AAR37863 54.5 33.9 574 8 ADN19927

7	53	32.9	160	4	ABG29353	Abg29353	Novel hum
8	52	32.3	776	8	ADQ97396	Adq97396	Mouse can
9	51	31.7	368	6	ABM68164	Abm68164	Photorhab
10	51	31.7	440	6	ABU35027	Abu35027	Protein e
11	51	31.7	441	8	ADL05664	Ad105664	M. catarr
12	50	31.1	160	8	ADN22669	Adn22669	Bacterial
13	50	31.1	228	7	ADB64675	Adb64675	Human pro
14	50	31.1	310	4	AAB87824	Aab87824	Mouse T2R
15	50	31.1	310	8	ADR29225	Adr29225	Taste rec
16	49	30.4	239	8	ADX94714	Adx94714	Plant ful
17	49	30.4	1004	6	ABU54557	Abu54557	Human NOV
18	49	30.4	1004	8	ADH72222	Adh72222	Human pro
19	49	30.4	1004	8	ADH72214	Adh72214	Human pro
20	49	30.4	1004	8	ADH72224	Adh72224	Human pro
21	49	30.4	3869	9	ADV24899	Adv24899	Anabaena
22	48	29.8	81	5	AA018262	Aao18262	Human pro
23	48	29.8	101	3	AAG00894	Aag00894	Human sec
24	48	29.8	252	5	ABB54710	Abb54710	Lactococc
25	48	29.8	379	8	ADR47321	Adr47321	Gliocladi

Result		Query				
No.	Score		Length	DB	ID	Description
1	144.5	89.8	152	- -	5187153-4	Patent No. 5187153
2	144.5	89.8	162	6	5220013-4	Patent No. 5220013
3	144.5	89.8	162	6	5223482-4	Patent No. 5223482
	55	34.2	554	2	US-09-248-796A-19033	Sequence 19033, A
4	54.5	34.2	200	2	US-09-248-796A-19033	Sequence 24082, A
5	54.5		441	2	US-09-540-236-3350	Sequence 3350, Ap
6 7	50	31.7 31.1	228	2	US-10-104-047-2829	Sequence 2829, Ap
			365	2	US-09-270-767-46767	Sequence 46767, A
8 9	50	31.1		2	US-09-248-796A-20368	Sequence 20368, A
	49	30.4	519	_	US-09-513-999C-4975	Sequence 4975, Ap
10	48	29.8	101	2		-
11	47.5	29.5	62	2	US-09-248-796A-23214	Sequence 23214, A
12	47.5	29.5	77	2	US-09-583-110-3977	Sequence 3977, Ap
13	47.5	29.5	77	2	US-09-107-433-3517	Sequence 3517, Ap
14	47	29.2	66	2	US-09-248-796A-26363	Sequence 26363, A
15	47	29.2	498	2	US-09-248-796A-15018	Sequence 15018, A
16	46.5	28.9	592	2	US-10-104-047-3371	Sequence 3371, Ap
17	46	28.6	180	2	US-09-198-452A-813	Sequence 813, App
18	46	28.6	183	2	US-09-438-185A-765	Sequence 765, App
19	46	28.6	308	2	US-09-252-991A-29384	Sequence 29384, A
20	46	28.6	430	2	US-09-107-532A-5101	Sequence 5101, Ap
21	46	28.6	491	2	US-09-538-092-112	Sequence 112, App
22	46	28.6	533	2	US-09-252-991A-21407	Sequence 21407, A
23	46	28.6	1527	2	US-09-647-140B-6	Sequence 6, Appli
24	46	28.6	1530	2	US-09-647-140B-33	Sequence 33, Appl
25	45.5	28.3	148	2	US-08-513-974B-335	Sequence 335, App

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
			- -			
1	161	100.0	52	5	US-10-700-922-4	Sequence 4, Appli
2	71	44.1	14	5	US-10-700-922-39	Sequence 39, Appl
3	55.5	34.5	98	4	US-10-424-599-218210	Sequence 218210,
4	54.5	33.9	127	4	US-10-424-599-163910	Sequence 163910,
5	54.5	33.9	574	4	US-10-369-493-2580	Sequence 2580, Ap
6	53	32.9	90	4	US-10-425-115-353662	Sequence 353662,
7	53	32.9	160	5	US-10-450-763-59712	Sequence 59712, A
8	52.5	32.6	52	4	US-10-425-115-328284	Sequence 328284,
9	52.5	32.6	63	4	US-10-425-115-347088	Sequence 347088,
10	52	32.3	139	4	US-10-424-599-272150	Sequence 272150,
11	51	31.7	89	4	US-10-437-963-186605	Sequence 186605,
12	51	31.7	125	4	US-10-425-115-188805	Sequence 188805,
13	51	31.7	440	4	US-10-282-122A-62951	Sequence 62951, A
14	50	31.1	87	4	US-10-425-115-357458	Sequence 357458,

15	50	31.1	156	4	US-10-424-599-151577	Sequence 151577	
16	50	31.1	160	4	US-10-369-493-5322	Sequence 5322,	Αp
17	50	31.1	228	4	US-10-104-047-2829	Sequence 2829,	Αp
18	50	31.1	310	3	US-09-510-332-164	Sequence 164, A	pp
19	50	31.1	310	4	US-10-770-127-164	Sequence 164, A	pp
20	50	31.1	310	5	US-10-962-365-164	Sequence 164, A	pp
21	49.5	30.7	54	4	US-10-425-115-231999	Sequence 231999	,
22	49	30.4	82	4	US-10-424-599-171059	Sequence 171059	,
23	49	30.4	215	4	US-10-425-115-335706	Sequence 335706	,
24	49	30.4	239	4	US-10-425-114-57378	Sequence 57378,	Α
25	49	30.4	569	4	US-10-437-963-127254	Sequence 127254	,

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	49	30.4	1004	 6	US-10-453-372-1110	Sequence 1110, Ap
2	49	30.4	1004	6	US-10-453-372-1118	Sequence 1118, Ap
3	49	30.4	1004	6	US-10-453-372-1120	Sequence 1120, Ap
4	48	29.8	946	7	US-11-010-239-42	Sequence 42, Appl
5	46	28.6	542	7	US-11-102-188-9	Sequence 9, Appli
6	45.5	28.3	808	7	US-11-110-082-38	Sequence 38, Appl
7	45	28.0	896	6	US-10-467-657-7004	Sequence 7004, Ap
8	45	28.0	1902	6	US-10-453-372-1004	Sequence 1004, Ap
9	45	28.0	2644	6	US-10-770-726-45	Sequence 45, Appl
10	45	28.0	4495	6	US-10-453-372-1002	Sequence 1002, Ap
11	43	26.7	132	6	US-10-793-626-1438	Sequence 1438, Ap
12	43	26.7	412	6	US-10-467-657-2064	Sequence 2064, Ap
13	42.5	26.4	140	6	US-10-821-234-1347	Sequence 1347, Ap
14	42	26.1	157	6	US-10-793-626-1168	Sequence 1168, Ap
15	42	26.1	379	6	US-10-131-826A-328	Sequence 328, App
16	42	26.1	3655	7	US-11-075-185-5	Sequence 5, Appli
17	41.5	25.8	243	6	US-10-793-626-3066	Sequence 3066, Ap
18	41.5	25.8	355	6	US-10-793-626-3172	Sequence 3172, Ap
19	41.5	25.8	1216	7	US-11-115-639-44	Sequence 44, Appl
20	41.5	25.8	1216	7	US-11-115-639-45	Sequence 45, Appl
21	41	25.5	133	6	US-10-793-626-2920	Sequence 2920, Ap
22	41	25.5	430	6	US-10-992-577-8	Sequence 8, Appli
23	41	25.5	430	6	US-10-508-892-2	Sequence 2, Appli
24	41	25.5	432	6	US-10-992-577-2	Sequence 2, Appli
25	41	25.5	1368	6	US-10-770-303-2	Sequence 2, Appli

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	55	34.2	334	2	T27081	hypothetical prote
2	55	34.2	695	2	E82783	hypothetical prote
3	55	34.2	726	2	B82511	4-alpha-glucanotra
4	54.5	33.9	153	2	G82778	hypothetical prote
5	54.5	33.9	574	2	T39829	amino-acid permeas
6	50.5	31.4	417	2	F97789	ampG protein [impo
7	50.5	31.4	618	1	S38004	probable transport
8	50	31.1	160	2	T32026	hypothetical prote
9	50	31.1	1905	2	T18267	multidrug resistan
10	49.5	30.7	452	2	H71706	ampg protein (ampG
11	49.5	30.7	944	2	T18911	hypothetical prote
12	49	30.4	165	2	E70366	hypothetical prote
13	49	30.4	245	2	B71006	hypothetical prote
14	49	30.4	268	2	AE2363	inositol monophosp
15	49	30.4	464	2	C83920	hypothetical prote
16	48.5	30.1	337	2	T20947	hypothetical prote
17	48.5	30.1	348	2	T20167	hypothetical prote
18	48.5	30.1	374	2	G88955	protein K04F1.6 [i
19	48.5	30.1	696	2	AB1566	hypothetical prote
20	48	29.8	96	2	S53368	mucin 5AC (clone M
21	48	29.8	238	2	E97105	probable membrane

22	48	29.8	252	2	C86796	hypothetical prote
23	48	29.8	408	2	C82178	conserved hypothet
24	48	29.8	725	2	S57127	probable membrane
25	48	29.8	946	2	S66367	H+-exporting ATPas

D16		T				
Result	Caara	Query	Length	DD.	ID	Description
No.	Score	Macch	nengun			Description
1	58	36.0	695	2	Q87BB9 XYLFT	Q87bb9 xylella fas
2	58	36.0	3223	2	Q8IKJ2_PLAF7	Q8ikj2 plasmodium
3	57	35.4	233	2	Q5TUZ1 ANOGA	Q5tuz1 anopheles g
4	56.5	35.1	530	2	Q5BEG9_EMENI	Q5beg9 aspergillus
5	56	34.8	528	2	Q6MYQ2_ASPFU	Q6myq2 aspergillus
6	56	34.8	528	2	Q4WSM1_ASPFU	Q4wsml aspergillus
7	56	34.8	530	2	Q8TGF4_ASPFU	Q8tgf4 aspergillus
8	55	34.2	85	2	Q5J5L6_9CAUD	Q5j5l6 mycobacteri
9	55	34.2	85	2	Q5J5U8_9CAUD	Q5j5u8 mycobacteri
10	55	34.2	284	2	Q7WT81_DESGI	Q7wt81 desulfovibr
11	55	34.2	334	2	Q9XXQ5_CAEEL	Q9xxq5 caenorhabdi
12	55	34.2	551	2	Q5A908_CANAL	Q5a908 candida alb
13	55	34.2	695	2	Q9PFP3_XYLFA	Q9pfp3 xylella fas
14	55	34.2	726	2	Q9KNF0_VIBCH	Q9knf0 vibrio chol
15	54.5	33.9	153	2	Q9PFJ3_XYLFA	Q9pfj3 xylella fas
16	54.5	33.9	574	1	MEU22_SCHPO	O60170 schizosacch
17	54	33.5	353	2	077111_APATO	077111 apatelodes
18	54	33.5	407	2	Q4L7E0_STAHJ	Q417e0 staphylococ
19	54	33.5	412	2	Q55ZQ5_CRYNE	Q55zq5 cryptococcu
20	54	33.5	412	2	Q5KP17_CRYNE	Q5kp17 cryptococcu
21	54	33.5	444	2	Q5P2B8_AZOSE	Q5p2b8 azoarcus sp
22	54	33.5	450	2	Q7N7U6_PHOLL	Q7n7u6 photorhabdu
23	54	33.5	528	2	Q4IK19_GIBZE	Q4ik19 gibberella
24	53.5	33.2	143	2	Q87BE7_XYLFT	Q87be7 xylella fas
25	53	32.9	85	2	Q9B0B4_BPMB1	Q9b0b4 mycobacteri

SEQ ID NO: 5

Result		% Query				
No.	Score	Match	Length	DB	ID	Description
1	223	100.0	44	2	AAW53985	Aaw53985 Human ALZ
2	223	100.0	79	2	AAW53981	Aaw53981 Human ALZ
3	159	71.3	70	4	AAE09373	Aae09373 Human wil
4	159	71.3	70	4	AAE09374	Aae09374 Human APP
5	159	71.3	70	4	AAE09375	Aae09375 Human tru
6	159	71.3	97	1	AAP83152	Aap83152 Lambda SM
7	159	71.3	97	1	AAP81517	Aap81517 Deduced s
8	159	71.3	97	2	AAR37865	Aar37865 Beta-amyl
9	159	71.3	99	2	AAR74694	Aar74694 Beta-amyl
10	159	71.3	99	2	AAR74695	Aar74695 Beta-amyl
11	159	71.3	99	2	AAR64167	Aar64167 Variant b
12	159	71.3	99	2	AAY08606	Aay08606 Human bet
13	159	71.3	99	4	AAB11483	Aab11483 Human APP
14	159	71.3	99	5	ABB76945	Abb76945 Amyloid P
15	159	71.3	99	6	ABP97919	Abp97919 Amino aci
16	159	71.3	99	6	ABP97981	Abp97981 C99, the
17	159	71.3	99	9	ADW88080	Adw88080 T668 phos
18	159	71.3	99	9	ADW88093	Adw88093 T668 phos
19	159	71.3	99	9	ADW88094	Adw88094 T668 phos
20	159	71.3	100	2	AAR37866	Aar37866 Full-leng
21	159	71.3	100	3	AAY51923	Aay51923 Transgeni
22	159	71.3	100	3	AAB13015	Aab13015 Human amy
23	159	71.3	100	5	AAE14377	Aae14377 Amyloid p
24	159	71.3	100	5	AAE14376	Aae14376 Amyloid p
25	159	71.3	100	5	AAE14371	Aae14371 Amyloid p

```
Result
               Query
 No.
       Score Match Length DB ID
                                                       Description
 -----
          159 71.3 97 6 5187153-8
                                                    Patent No. 5187153
    1
                        97 6 5220013-8
          159
               71.3
                                                       Patent No. 5220013
    2
                                                        Sequence 3, Appli
          159
               71.3
                       99 1 US-08-422-333-3
                        99 2 US-08-339-708A-4
                                                        Sequence 4, Appli
          159
                71.3
    4
                        99 2 US-08-339-708A-6
                                                        Sequence 6, Appli
    5
          159
                71.3
                      100 6 5187153-10
                                                      Patent No. 5187153
          159
               71.3
    6
                      100 6 5220013-10
103 1 US-08-404-831-2
                                                       Patent No. 5220013
               71.3
    7
          159
                                                        Sequence 2, Appli
                71.3
    8
          159
                                                         Sequence 2, Appli
                       103 1 US-08-612-785B-2
    9
          159
                71.3
                                                         Sequence 2, Appli
   10
          159
               71.3
                      103 1 US-08-475-579A-2
                                                         Sequence 2, Appli
          159
                71.3
                       103 1 US-08-920-162A-2
   11
                       103 2 US-08-339-708A-10
                                                         Sequence 10, Appl
   12
          159
                71.3
                      103 2 US-08-339-708A-12
                                                         Sequence 12, Appl
   13
          159
                71.3
                      103 2 US-09-356-931-2
                                                         Sequence 2, Appli
          159
               71.3
   14
                       103 2 US-08-703-675C-2
   15
          159
                71.3
                                                         Sequence 2, Appli
                                                         Sequence 2, Appli
   16
          159
                71.3
                      103 2 US-08-617-267C-2
                                                         Sequence 2, Appli
   17
          159
               71.3
                     103 2 US-09-519-019A-2
                                                         Sequence 2, Appli
   18
          159
                71.3
                       103 2 US-09-895-443A-2
                       103 2 US-10-395-290-2
                                                        Sequence 2, Appli
   19
          159
                71.3
                      104 2 US-09-823-153-4
                                                        Sequence 4, Appli
   20
          159
               71.3
                       105 1 US-08-729-345-1
                                                        Sequence 1, Appli
   21
          159
               71.3
                                                        Patent No. 5187153
   22
          159
                71.3
                       108 6 5187153-14
                       108 6 5220013-18
                                                        Patent No. 5220013
                71.3
   23
          159
                                                       Patent No. 5223482
   24
          159
                71.3
                       108 6 5223482-16
                       117 1 US-08-729-345-3
                                                         Sequence 3, Appli
   25
          159
                71.3
RESULT 1
AAW53985
    AAW53985 standard; protein; 44 AA.
ID
ХX
AC
    AAW53985;
XX
    18-AUG-1998 (first entry)
DT
XX
    Human ALZASp2.
DE
XX
    Dsas; DSASp; alzas; Down's syndrome; diagnosis; therapy; human;
KW
KW
    Alzheimer's disease.
XX
os
    Homo sapiens.
XX
    WO9807850-A2.
PN
\mathbf{x}\mathbf{x}
    26-FEB-1998.
PD
XX
PF
    22-AUG-1997; 97WO-EP004599.
XX
PR
    22-AUG-1996; 96CA-02183901.
XX
PA
     (BERG/) BERGMANN J E.
    (PRED/) PREDDIE E R.
PA
XX
PΙ
    Bergmann JE, Preddie ER;
XX
    WPI; 1998-169155/15.
DR
    N-PSDB; AAV23755.
DR
xx
PT
    Nucleic acid molecules dsas, and alzas - used for detecting and treating
    Down's syndrome and Alzheimer's disease.
PT
XX
PS
    Claim 13; Fig 1M; 96pp; English.
XX
    This sequence is the ALZASp2 encoded by the nucleic acid alzas. The dsas
CC
    and alzas DNA sequences are the nucleic acids of the invention. Reagents
CC
     specifically for DSASp can be used for the diagnosis of Down's syndrome
CC
    in humans and especially in pregnant women. Molecules that inhibit the
```

```
activity of the promoters (PDS1, PDS2, PDS3, and PDS4) for dsas can be
CC
    used for treating Down's syndrome. The reagent capable of detecting alzas
CC
    can be used for detecting Alzheimer's disease, especially in the pre-
CC
    symptomatic stage. Substances that inhibit the promoters for alzas can be
CC
    used in treating Alzheimer's disease
CC
XX
SQ
    Sequence 44 AA;
 Query Match 100.0%; Score 223; DB 2; Length 44; Best Local Similarity 100.0%; Pred. No. 4.1e-24;
                              0; Mismatches
 Matches 44; Conservative
                                                               0; Gaps
                                                                           0;
           1 MVGGVVIATVIVITLVMLKKKQYTSIHHGVVEVGKLDCMFPSGN 44
Qу
              1 MVGGVVIATVIVITLVMLKKKQYTSIHHGVVEVGKLDCMFPSGN 44
Db
```

		*				
Result		Query			TD	Doggwinting
No.	Score	matcn	Length	DB	ID	Description
1	223	100.0	44	5	US-10-700-922-5	Sequence 5, Appli
2	223	100.0	79	5	US-10-700-922-3	Sequence 3, Appli
3	159	71.3	99	4	US-10-183-119-2	Sequence 2, Appli
4	159	71.3	99	5	US-10-486-265-3	Sequence 3, Appli
5	159	71.3	100	3	US-09-794-975-4	Sequence 4, Appli
6	159	71.3	100	4	US-10-275-025-1	Sequence 1, Appli
7	159	71.3	100	4	US-10-275-025-6	Sequence 6, Appli
8	159	71.3	100	4	US-10-275-025-7	Sequence 7, Appli
9	159	71.3	100	5	US-10-849-423-4	Sequence 4, Appli
10	159	71.3	100	5	US-10-486-265-5	Sequence 5, Appli
11	159	71.3	103	3	US-09-972-475-2	Sequence 2, Appli
12	159	71.3	103	3	US-09-895-443-2	Sequence 2, Appli
13	159	71.3	103	4	US-10-395-290-2	Sequence 2, Appli
14	159	71.3	103	4	US-10-463-729-2	Sequence 2, Appli
15	159	71.3	103	5	US-10-989-763-2	Sequence 2, Appli
16	159	71.3	104	3	US-09-823-153-4	Sequence 4, Appli
17	159	71.3	104	4	US-10-713-981-4	Sequence 4, Appli
18	159	71.3	108	4	US-10-275-025-9	Sequence 9, Appli
19	159	71.3	108	4	US-10-275-025-14	Sequence 14, Appl
20	159	71.3	108	4	US-10-275-025-15	Sequence 15, Appl
21	159	71.3	108	5	US-10-486-265-7	Sequence 7, Appli
22	159	71.3	117	3	US-09-794-975-6	Sequence 6, Appli
23	159	71.3	117	3	US-09-823-153-2	Sequence 2, Appli
24	159	71.3	117	3	US-09-422-569-10	Sequence 10, Appl
25	159	71.3	117	4	US-10-713-981-2	Sequence 2, Appli

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
	159	71.3	103	6	US-10-677-076-2	Sequence 2, Appli
		–		_		
2	159	71.3	770	6	US-10-982-545-15	Sequence 15, Appl
3	159	71.3	770	6	US-10-789-273-38	Sequence 38, Appl
4	106	47.5	763	6	US-10-821-234-1619	Sequence 1619, Ap
5	79	35.4	15	7	US-11-118-429-8	Sequence 8, Appli
6	79	35.4	47	7	US-11-118-429-1	Sequence 1, Appli
7	63	28.3	16	7	US-11-145-573-22	Sequence 22, Appl
8	62	27.8	11	7	US-11-118-429-4	Sequence 4, Appli
9	57	25.6	10	7	US-11-118-429-3	Sequence 3, Appli
10	55.5	24.9	771	7	US-11-147-047-34	Sequence 34, Appl
11	54	24.2	423	6	US-10-793-626-3234	Sequence 3234, Ap
12	53	23.8	12	7	US-11-145-573-12	Sequence 12, Appl
13	52	23.3	9	7	US-11-118-429-2	Sequence 2, Appli
14	51	22.9	628	6	US-10-453-372-548	Sequence 548, App
15	51	22.9	628	6	US-10-453-372-550	Sequence 550, App
16	51	22.9	628	7	US-11-147-047-45	Sequence 45, Appl

7	766	22.6	50.5	17
6	213	22.2	49.5	18
6	660	22.0	49	19
6	12	21.5	48	20
6	296	21.5	48	21
6	333	21.5	48	22
6	638	21.5	48	23
6	443	21.3	47.5	24
6	215	21.1	47	25
6 6 6 6	; ; ; ;	213 660 12 296 333 638 443	22.2 213 22.0 660 21.5 12 21.5 296 21.5 333 21.5 638 21.3 443	49.5 22.2 213 49 22.0 660 48 21.5 12 48 21.5 296 48 21.5 333 48 21.5 638 47.5 21.3 443

Result		Query				
No.	Score		Length	DB	ID	Description
1	159	71.3	695	1	A49795	Alzheimer's diseas
2	159	71.3	695	2	A27485	Alzheimer's diseas
3	159	71.3	695	2	S00550	Alzheimer's diseas
4	159	71.3	770	1	QRHUA4	Alzheimer's diseas
5	156	70.0	747	2	JH0773	Alzheimer's diseas
6	155	69.5	82	2	PQ0438	Alzheimer's diseas
7	106	47.5	191	2	A35981	sperm membrane pro
8	106	47.5	511	2	JC1404	CDEI-box DNA-bindi
9	106	47.5	751	2	A49974	beta-amyloid precu
10	106	47.5	763	2	A49321	amyloid beta (A4)
11	106	47.5	765	2	S42880	amyloid precursor-
12	80	35.9	57	2	A60045	Alzheimer's diseas
13	80	35.9	57	2	F60045	Alzheimer's diseas
14	80	35.9	57	2	D60045	Alzheimer's diseas
15	80	35.9	57	2	E60045	Alzheimer's diseas
16	80	35.9	57	2	G60045	Alzheimer's diseas
17	80	35.9	57	2	B60045	Alzheimer's diseas
18	68.5	30.7	653	2	A46362	amyloid precursor-
19	62	27.8	536	2	JG0022	flagellar basal-bo
20	61	27.4	285	2	S36903	Fc gamma (IgG) rec
21	57	25.6	217	2	AG1640	hypothetical prote
22	55.5	24.9	519	2	S17783	tachykinin recepto
23	54	24.2	274	2	B95972	probable sugar upt
24	54	24.2	371	2	B26532	prephenate dehydro
25	54	24.2	380	2	T23546	hypothetical prote

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	159	71.3	113	2	Q8JH58_CHESE	Q8jh58 chelydra se
2	159	71.3	218	2	Q8BPV5_MOUSE	Q8bpv5 mus musculu
3	159	71.3	384	2	Q8BPC7_MOUSE	Q8bpc7 mus musculu
4	159	71.3	534	2	O93296_CHICK	093296 gallus gall
5	159	71.3	695	2	Q5R477_PONPY	Q5r477 pongo pygma
6	159	71.3	695	2	Q6RH29_CANFA	Q6rh29 canis famil
7	159	71.3	695	2	Q56JK3_CANFA	Q56jk3 canis famil
8	159	71.3	695	2	Q6GR78_MOUSE	Q6gr78 mus musculu
9	159	71.3	695	2	Q9DGJ8_CHICK	Q9dgj8 gallus gall
10	159	71.3	699	2	O57394_NARJA	057394 narke japon
11	159	71.3	714	2	Q56JK4_CANFA	Q56jk4 canis famil
12	159	71.3	733	2	Q6P6Q5_RAT	Q6p6q5 rattus norv
13	159	71.3	749	2	Q56JK2_STECO	Q56jk2 stenella co
14	159	71.3	751	1	A4_SAISC	Q95241 s amyloid b
15	159	71.3	751	2	Q6GSC0_HUMAN	Q6gsc0 homo sapien
16	159	71.3	751	2	Q6RH28_CANFA	Q6rh28 canis famil
17	159	71.3	751	2	Q56JK5_CANFA	Q56jk5 canis famil
18	159	71.3	751	2	Q4R4R8_MACFA	Q4r4r8 macaca fasc
19	159	71.3	751	2	Q9DGJ7_CHICK	Q9dgj7 gallus gall
20	159	71.3	770	1	A4_CAVPO	Q60495 c amyloid b
21	159	71.3	770	1	A4_HUMAN	P05067 h amyloid b
22	159	71.3	770	1	A4_MACFA	P53601 m amyloid b
23	159	71.3	770	1	A4_MOUSE	P12023 m amyloid b

```
24 159 71.3 770 1 A4_PANTR Q5is80 p amyloid b
25 159 71.3 770 1 A4_PIG P79307 s amyloid b
```

Residues 33-44

```
*
               Query
Result
                                                          Description
  No.
        Score Match Length DB ID
                         44 2 AAW53985
                                                          Aaw53985 Human ALZ
           68 100.0
    1
                                                          Aaw53981 Human ALZ
                         79 2 AAW53981
               100.0
    2
           68
                                                          Ady10870 Plant ful
                        319 8 ADY10870
           41
               60.3
    3
                                                          Adx76988 Plant ful
                        320 8 ADX76988
           41
                60.3
                        390 8 ADX67647
                                                          Adx67647 Plant ful
                60.3
    5
           41
                                                          Ady13875 Plant ful
                        464 8 ADY13875
     6
           41
                60.3
                        474 8 ADY23182
                                                          Ady23182 Plant ful
    7
           41
                60.3
                                                          Adx77129 Plant ful
                        508 8 ADX77129
                60.3
    8
           41
                                                          Ady10151 Plant ful
                60.3
                         567
                            8 ADY10151
     9
           41
                                                          Ady10022 Plant ful
                60.3
                        567 8 ADY10022
    10
           41
                        571 8 ADY25252
                                                          Ady25252 Plant ful
    11
           41
                60.3
                         571 8
                                ADY10833
                                                          Ady10833 Plant ful
                60.3
    12
           41
                                                          Ady25174 Plant ful
    13
           41
                60.3
                        571 8 ADY25174
                                                          Ady10835 Plant ful
                        571 8 ADY10835
           41
                60.3
   14
                        572 8 ADY08462
                                                          Ady08462 Plant ful
   15
           41
                60.3
                                                          Ady24912 Plant ful
    16
           41
                60.3
                         572 8 ADY24912
                                                          Abm86562 Rice abio
                60.3
                         857 7 ABM86562
   17
           41
                                                          Abr57102 MLHR amin
                        126 6 ABR57102
    18
           40
                58.8
                         372 2 AAR06242
                                                          Aar06242 Homing re
                58.8
    19
           40
                        372 2 AAR12470
                                                          Aar12470 Sequence
    20
           40
                58.8
                         372 2 AAR24027
                                                          Aar24027 Sequence
    21
           40
                 58.8
                         372 2 AAR22803
                                                          Aar22803 Murine ly
    22
           40
                 58.8
    23
            40
                 58.8
                         372
                             2
                                AAR37961
                                                          Aar37961 Mouse Lym
                         372 2 AAR38909
                                                          Aar38909 MLHR. 3/2
                 58.8
    24
            40
                                                          Aar83051 Mouse LHR
    25
            40
                 58.8
                         372 2 AAR83051
RESULT 1
AAW53985
    AAW53985 standard; protein; 44 AA.
ID
XX
AC
XX
     18-AUG-1998 (first entry)
DT
ХX
DE
     Human ALZASp2.
XX
     Dsas; DSASp; alzas; Down's syndrome; diagnosis; therapy; human;
KW
KW
     Alzheimer's disease.
XX
os
     Homo sapiens.
XX
     WO9807850-A2.
PN
XX
     26-FEB-1998.
PD
\mathbf{x}\mathbf{x}
     22-AUG-1997; 97WO-EP004599.
PF
XX
PR
     22-AUG-1996;
                   96CA-02183901.
XX
     (BERG/) BERGMANN J E.
PA
     (PRED/) PREDDIE E R.
PA
XX
PΙ
     Bergmann JE, Preddie ER;
XX
     WPI; 1998-169155/15.
DR
     N-PSDB; AAV23755.
DR
xx
     Nucleic acid molecules dsas, and alzas - used for detecting and treating
РΤ
PT
     Down's syndrome and Alzheimer's disease.
XX
     Claim 13; Fig 1M; 96pp; English.
PS
```

```
XX
     This sequence is the ALZASp2 encoded by the nucleic acid alzas. The dsas
CC
     and alzas DNA sequences are the nucleic acids of the invention. Reagents
CC
     specifically for DSASp can be used for the diagnosis of Down's syndrome
CC
     in humans and especially in pregnant women. Molecules that inhibit the
CC
     activity of the promoters (PDS1, PDS2, PDS3, and PDS4) for dsas can be
CC
     used for treating Down's syndrome. The reagent capable of detecting alzas
CC
     can be used for detecting Alzheimer's disease, especially in the pre-
CC
     symptomatic stage. Substances that inhibit the promoters for alzas can be
CC
     used in treating Alzheimer's disease
CC
XX
SQ
     Sequence 44 AA;
  Query Match 100.0%; Score 68; DB 2; Length 44; Best Local Similarity 100.0%; Pred. No. 0.00025;
  Matches 12; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
            1 VGKLDCMFPSGN 12
              Db
           33 VGKLDCMFPSGN 44
```

		¥				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	41	60.3	566	 2	US-09-431-470-2	Sequence 2, Appli
_	40	58.8	126	6	5514582-31	Patent No. 5514582
2	_	58.8	372	1	US-08-513-278-4	Sequence 4, Appli
	40			_		Patent No. 5514582
4	40	58.8	372	6	5514582-4	
5	39	57.4	197	2	US-09-905-558D-2	Sequence 2, Appli
6	38	55.9	372	1	US-08-513-278-2	Sequence 2, Appli
7	38	55.9	372	6	5514582-2	Patent No. 5514582
8	38	55.9	385	1	US-08-340-539A-2	Sequence 2, Appli
9	38	55.9	385	1	US-08-461-592B-2	Sequence 2, Appli
10	38	55.9	563	2	US-09-431-470-4	Sequence 4, Appli
11	37	54.4	148	2	US-09-083-852A-4	Sequence 4, Appli
12	37	54.4	148	2	US-09-083-852A-6	Sequence 6, Appli
13	37	54.4	148	2	US-09-489-674B-6	Sequence 6, Appli
14	37	54.4	198	2	US-09-270-767-38209	Sequence 38209, A
15	37	54.4	198	2	US-09-270-767-53426	Sequence 53426, A
16	37	54.4	392	2	US-09-991-181-205	Sequence 205, App
17	37	54.4	392	2	US-09-990-444-205	Sequence 205, App
18	37	54.4	392	2	US-09-997-333-205	Sequence 205, App
19	37	54.4	392	2	US-09-992-598-205	Sequence 205, App
20	37	54.4	393	2	US-09-482-273-154	Sequence 154, App
21	37	54.4	566	1	US-07-955-905A-2	Sequence 2, Appli
22	37	54.4	566	1	US-07-955-905A-22	Sequence 22, Appl
23	37	54.4	629	2	US-09-252-991A-17988	Sequence 17988, A
24	37	54.4	812	2	US-09-198-452A-978	Sequence 978, App
25	37	54.4	812	2	US-09-438-185A-907	Sequence 907, App

_		- 15				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	68	100.0	13	5	US-10-700-922-37	Sequence 37, Appl
2	68	100.0	44	5	US-10-700-922-5	Sequence 5, Appli
3	68	100.0	79	5	US-10-700-922-3	Sequence 3, Appli
4	44	64.7	186	4	US-10-424-599-283376	Sequence 283376,
5	44	64.7	379	4	US-10-424-599-283377	Sequence 283377,
6	41	60.3	319	4	US-10-425-114-66685	Sequence 66685, A
7	41	60.3	320	4	US-10-425-114-46354	Sequence 46354, A
8	41	60.3	390	4	US-10-425-114-38490	Sequence 38490, A
9	41	60.3	463	4	US-10-425-115-331535	Sequence 331535,
10	41	60.3	464	4	US-10-425-114-69690	Sequence 69690, A
11	41	60.3	474	4	US-10-425-114-70966	Sequence 70966, A
12	41	60.3	474	4	US-10-425-115-331539	Sequence 331539,

13	41	60.3	508	4	US-10-425-114-46495	Sequence	46495, A
14	41	60.3	566	4	US-10-425-115-331542	Sequence	331542,
15	41	60.3	567	4	US-10-425-114-65837	Sequence	65837, A
16	41	60.3	567	4	US-10-425-114-65966	Sequence	65966, A
17	41	60.3	567	4	US-10-425-115-331541	Sequence	331541,
18	41	60.3	567	4	US-10-425-115-331546	Sequence	331546,
19	41	60.3	571	4	US-10-425-114-66648	Sequence	66648, A
20	41	60.3	571	4	US-10-425-114-66650	Sequence	66650, A
21	41	60.3	571	4	US-10-425-114-72958	Sequence	72958, A
22	41	60.3	571	4	US-10-425-114-73036	Sequence	73036, A
23	41	60.3	572	4	US-10-425-114-64277	Sequence	64277, A
24	41	60.3	572	4	US-10-425-114-72696	Sequence	72696, A
25	41	60.3	784	4	US-10-437-963-194970	Sequence	194970,

D 1 t		*				
Result	0	Query	T	חח	ID	Description
No.	Score	maten	Length	שע	10	
1	38	55.9	320	6	US-10-995-561-947	Sequence 947, App
2	38	55.9	372	6	US-10-844-035-1	Sequence 1, Appli
3	38	55.9	373	6	US-10-995-561-948	Sequence 948, App
4	38	55.9	375	6	US-10-995-561-946	Sequence 946, App
5	38	55.9	385	6	US-10-995-561-945	Sequence 945, App
6	38	55.9	385	6	US-10-995-561-949	Sequence 949, App
7	37	54.4	148	6	US-10-526-716-2	Sequence 2, Appli
8	37	54.4	392	7	US-11-084-458-2	Sequence 2, Appli
9	36	52.9	497	6	US-10-821-234-1119	Sequence 1119, Ap
10	35	51.5	270	7	US-11-219-146-26	Sequence 26, Appl
11	35	51.5	270	7	US-11-219-146-28	Sequence 28, Appl
12	35	51.5	270	7	US-11-219-146-30	Sequence 30, Appl
13	35	51.5	270	7	US-11-219-146-32	Sequence 32, Appl
14	35	51.5	1304	6	US-10-821-234-1648	Sequence 1648, Ap
15	34	50.0	492	6	US-10-467-657-7714	Sequence 7714, Ap
16	34	50.0	549	7	US-11-054-281-129	Sequence 129, App
17	34	50.0	572	6	US-10-793-626-2974	Sequence 2974, Ap
18	34	50.0	591	7	US-11-054-281-36	Sequence 36, Appl
19	34	50.0	591	7	US-11-054-281-128	Sequence 128, App
20	34	50.0	592	7	US-11-054-281-126	Sequence 126, App
21	34	50.0	592	7	US-11-054-281-127	Sequence 127, App
22	33	48.5	198	7	US-11-214-199-6	Sequence 6, Appli
23	33	48.5	350	6	US-10-878-556A-66	Sequence 66, Appl
24	33	48.5	383	7	US-11-147-047-38	Sequence 38, Appl
25	33	48.5	791	6	US-10-055-877-137	Sequence 137, App

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	42	61.8	570	2	T11647	probable pyruvate
2	41	60.3	566	2	A48860	beta-glucosidase,
3	41	60.3	668	2	H71312	probable ATP-depen
4	40	58.8	252	2	Н97189	glycosyltransferas
5	40	58.8	372	1	A32375	L-selectin precurs
6	40	58.8	508	2	T32847	hypothetical prote
7	38	55.9	121	2	D91251	hypothetical prote
8	38	55.9	145	2	AD1093	hypothetical prote
9	38	55.9	238	2	A75478	shikimate kinase -
10	38	55.9	276	2	JC2441	dihydrodiol dehydr
11	38	55.9	385	1	A34015	L-selectin precurs
12	38	55.9	542	2	AI3564	hypothetical membr
13	38	55.9	563	2	T02720	beta-D-glucosidase
14	38	55.9	660	2	T20228	hypothetical prote
15	38	55.9	994	1	JQ0151	myosin heavy chain
16	38	55.9	1661	2	H71439	hypothetical prote
17	37	54.4	148	2	S46514	puroindoline-b pre
18	37	54.4	238	2	AG2909	hypothetical prote
19	37	54.4	258	2	E97684	hypothetical prote

20	37	54.4	358	2	A72416	hypothetical prote
21	37	54.4	566	2	S22477	vicilin precursor
22	37	54.4	619	2	F96703	unknown protein, 3
23	37	54.4	624	2	A83237	hypothetical prote
24	37	54.4	809	2	G86603	muramate-Ala ligas
25	37	54.4	809	2	D72022	UDP-N-acetylmurama

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	42	61.8	258	1	PYRK_STRMU	Q8dtu9 streptococc
2	42	61.8	397	2	Q8EJW4_SHEON	Q8ejw4 shewanella
3	42	61.8	570	2	O42873_SCHPO	O42873 schizosacch
4	42	61.8	1159	2	Q54T02_DICDI	Q54t02 dictyosteli
5	41	60.3	566	1	BGLC_MAIZE	P49235 zea mays (m
6	41	60.3	566	2	Q53WW9_MAIZE	Q53ww9 zea mays (m
7	41	60.3	668	2	O83538_TREPA	O83538 treponema p
8	41	60.3	768	2	Q7PQ01_ANOGA	Q7pq01 anopheles g
9	41	60.3	857	2	Q69XN5_ORYSA	Q69xn5 oryza sativ
10	40	58.8	252	2	Q97GL5_CLOAB	Q97gl5 clostridium
11	40	58.8	350	2	Q67YQ8_ARATH	Q67yq8 arabidopsis
12	40	58.8	350	2	Q6NPN9_ARATH	Q6npn9 arabidopsis
13	40	58.8	372	1	LYAM1_MOUSE	P18337 m l-selecti
14	40	58.8	508	2	O44864_CAEEL	O44864 caenorhabdi
15	39.5	58.1	1172	2	Q6Z3X7_ORYSA	Q6z3x7 oryza sativ
16	39	57.4	79	2	Q9MWY3_LEOPA	Q9mwy3 leopardus p
17	39	57.4	273	2	Q73TB4_MYCPA	Q73tb4 mycobacteri
18	39	57.4	324	2	Q63VS5_BURPS	Q63vs5 burkholderi
19	39	57.4	324	2	Q62IJ4_BURMA	Q62ij4 burkholderi
20	39	57.4	360	2	Q9U8H8_9EUKA	Q9u8h8 giardia ard
21	39	57.4	494	2	Q86A22_DICDI	Q86a22 dictyosteli
22	39	57.4	712	2	Q8EF46_SHEON	Q8ef46 shewanella
23	38.5	56.6	1816	2	Q8IJL6_PLAF7	Q8ijl6 plasmodium
24	38	55.9			P96303_ALCEU	P96303 alcaligenes
25	38	55.9	121	2	Q8X2Y4_ECO57	Q8x2y4 escherichia